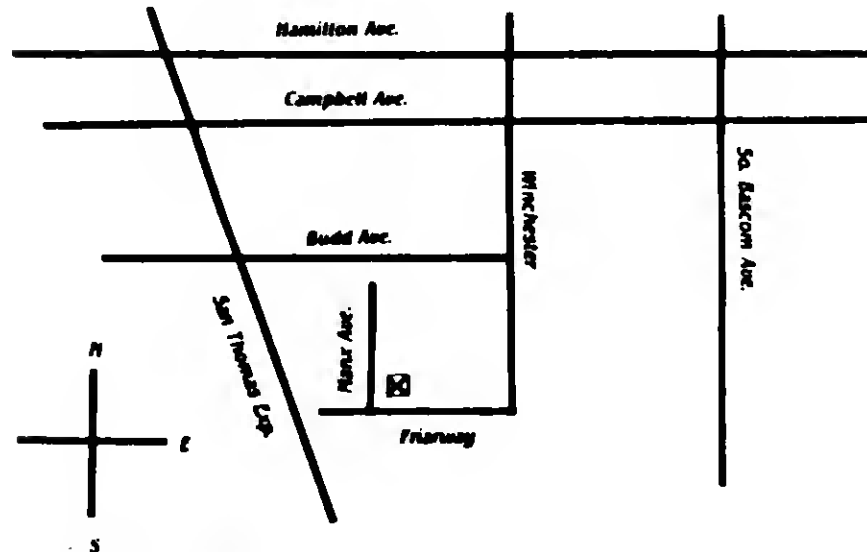


This club has been established to provide its members total computer knowledge using "hands-on" application during the meetings. For better understanding of existing hardware and software in an informal—social club atmosphere.

We hope to provide members close contact between novice and amateur home computer enthusiasts; young and old, male and female, school, home, business and hobbyist.



INFORMATION...CALL 408-379-2774

#### MEETINGS:

2ND SAT.....1PM WORKSHOP

4TH WED.....7PM LECTURE

HAPPY NEW YEAR TO ALL OUR CLUB MEMBERS THROUGHOUT THE USA. 1988 SHOULD BE A BUSY YEAR WITH MANY NEW ENHANCEMENTS IN THE CLUB'S STRUCTURE.

The 4th wed. meeting will combine the lecture subject with maintenance of the club's activities-libraries ect. (this way participating members will go home with applied knowledge).

The 2nd. sat meeting will remain the same format.

Please bring your computers to the meetings if you are having problems- if you need your computer updated or your adding new accessories ect.. or you just need assistance with a program or any other reason...just bring it with you to the meeting.

Out of the area memberships:

We have had an increase in our out of the area club memberships so we need to address the coverage of club services to those persons. The increase comes from our posted listing in "80 micro" Nov. issue. there are a bunch of stranded trsdos users out there. Persons whose clubs went "POOF". We can assist them easily so we offer our club membership to them.

CLUB BBS:

The club bbs is set up on the model 3 machine, it has its own telephone line and number 408-374-1539 (this is a change from the original posting) We split it off the ms dos clone to give better access to everyone and it is an easier bbs to use. large files and programs will be maintained on the ms dos computer but club news and small files will be maintained on the model 3 machine.... So pull out the modem and give the bbs a try its not hard to use and a neat way to communicate.

TRSDOS DATE FIX:

The club ordered the LSDOS date fix patch program for those who need to continue the datefix on their model 4-4p TRSDOS 6.2 disk operating disks, we also obtained a program called "DATE/fix" that fixes TRSDOS. and another program that is posted on 80-micro bbs that fixes the date system. This coverage should satisfy any persons reason for needing a fix to their model 4 computers dos. We even obtained another that is called "SIX2XEND" the three patch programs extend the calendar year past 1987. Some how, the person who designed the model 4 dos's didnt think the machines would stay alive longer than the year 1987 so they put a terminal end to the dos as of the year 1987.....another Tandy first????????????????????

NOTE.....each program has its own quirks, you get to pick which one you think will drive you up a tree the least.

### GRAFPLUS-PRINT COMMANDER:

These are two MS DOS resident programs we obtained that will allow you to use your older R/S printers (non ibm character set) or other printers to work with the MSDOS text and graphics modes. We noted that many ex-trsdos persons kept their old printers hoping they would work in the MSDOS environments. They now have a second chance to use those machines. These two programs are at the club. we recommend you try them out and buy them if you see that they solve your printer problems.

GRAFPLUS gives text and graphics capabilities while PRINT COMMANDER gives you text capabilities.

### PACKET HAM RADIO:

Sam recieved his "TECH." ham radio lic. so now we can fully impliment the two meter FM radio communications system into the bbs system. We joined a local amature radio club also so we may enhance a few of their members into our computer club. Sams call letters are KB6OQT. We will monitor ch.145.07 with the bbs and listen on station 14676 on the 2 meter band. I'm sure we can learn, everybody starts somewhere, and in the amature world we are lost.....

### COMPUTER NEWS 80:

This is a new magazine for the model 1-3-4-4p computers, we have a copy in this months news for your review and if you wish to obtain it you can send them their fee and subscribe to it. WE will have it at the house too. come to the club meetings and read these new magazines.

### MODEL 4REALTIME CLOCK:

There is a schematic in this newsletter that gives speed to the model 4 computers. the print comes from our club up in canada "MICROGRAM" we swap newsletters with them and use their articals too. This newsletter is at the club meetings also. come and read them.

### Installing the rs-232 model 1:

The two major components to the model 1 rs-232 system are the circuit board and the cable assembly. It isnt easy to make it work,.....The old machine needs some pre-cleaning of the internal connecting points before it all happens. Find the rs-232 connecting bar- remove it from the circuit board of the interface unit. clean the contacts on the bar and clean the circuit-traces on the interface board. reposition the bar and reinstall it on the interface board. Position the rs-232 circuit board on its contacts. holding it while tightening the two screws. (the aliegnment is critical) next, clean the card edge for the rs-232 cable. this can be done with an eraser. the top and bottom of the edge should be cleaned. To make your own cable.....see picture:::::

## RS-232 cable assy.

40 pin connector

pin#16  
18  
22  
36  
32  
40  
30  
34  
38

db25 connector

pin#1  
2  
3  
4  
5  
6  
8  
20  
22

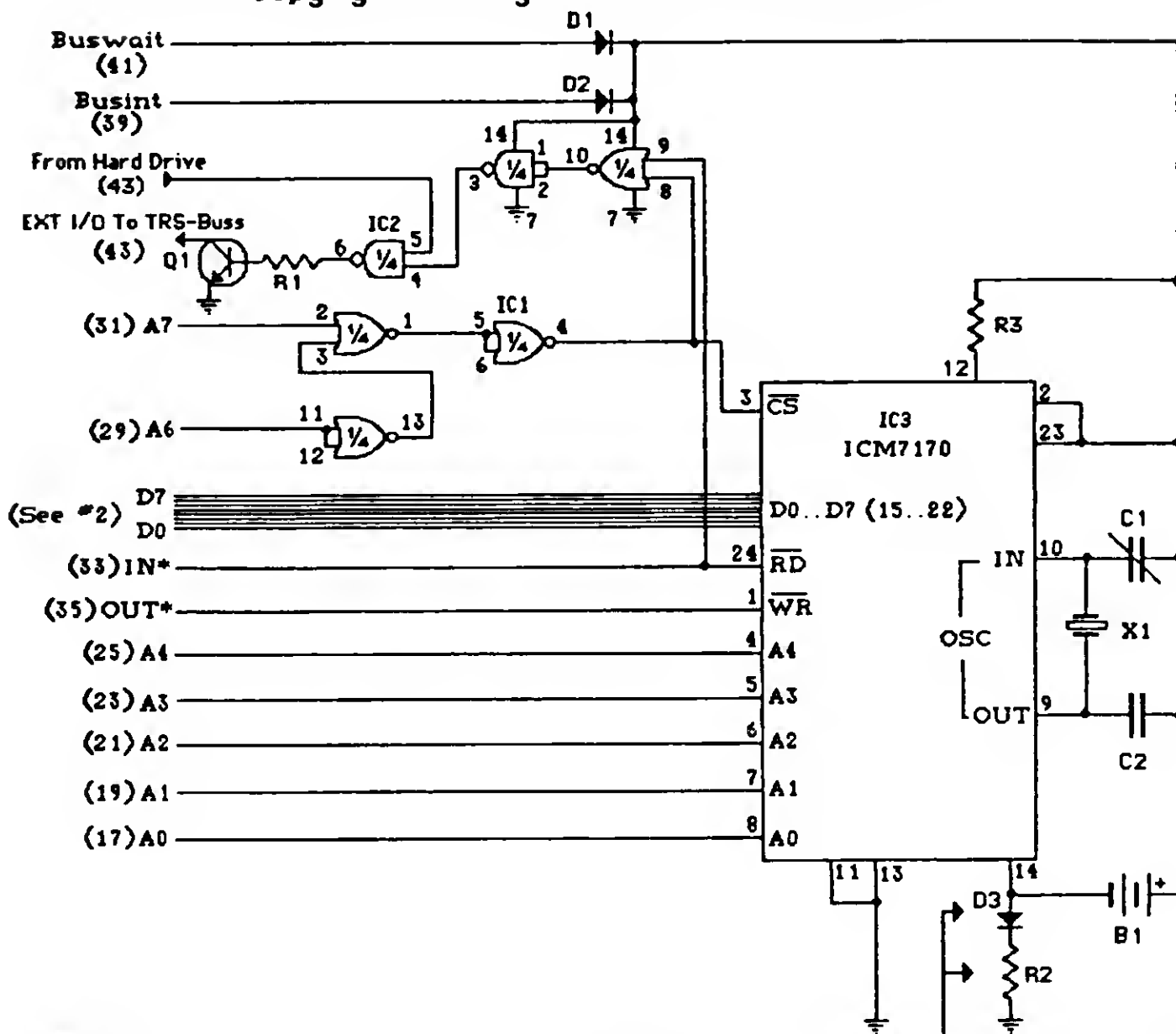
THIS CABLE DESIGN IS MANDATORY.....

## PICA MAGAZINE:

The club was sent 6 copies of FICA portable computing magazine for those who are into laptop computers. these can be obtained at the club meetings while they last. This magazine covers the tandy portables and others and is a good guide to keeping the little machines up and running.

# Real Time Clock Circuit for the TRS-80 Model 4 Microcomputer

Copyright 1987 by Mel Patrick - Version 2.5



## Parts List

Diodes - D1,D2,D3 - 1N4148

Resistors - R1 - 470 OHM 1/4W

R2 - 2K2 OHM 1/4W (optional for nicads)

R3 - 4K7 OHM 1/4W (used for timing setup)

IC's - IC1 - 74HCT02

IC2 - 74HCT00

IC3 - ICM7170... (INTERSIL Clock Chip)

Q1 - 2N3904 - Silicon NPN switching transistor

Capacitors - C1 - 33pf trimmer

C2 - 18 pf

X1 - Crystal 32.768 KHZ (small watch type)

B1 - two 1.25V nicads or one 3V Lithium Watch Cell Radio Shack CR2032

Misc - Sockets, solder, wire wrap (30 awg)

ribbon cable, edge card connector, etc.

NOTE - if you decide to use the 3V lithium cell OMIT D3 and R2

## Inset #2

TRS -- Data -- 7170

Pin ----- Pin

1	----	D0	----	15
3	----	D1	----	16
5	----	D2	----	17
7	----	D3	----	18
9	----	D4	----	19
11	----	D5	----	20
13	----	D6	----	21
15	----	D7	----	22

BYTE BANDITS OF AMERICA  
TRS-80 COMPUTER CLUB  
780 Mans Ave.  
Campbell, CA. 95008

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TRS-80's  
4th Wed. Meeting Schedule 1988

The 4th Wed. Meeting's Agenda will be amended to include Functional Training, as well as Club Maintenance, for the year 1988.

JAN TRSDOS-Transferring-Saving-Copying of Programs  
Setting up a Data Base Program  
Indexing the Club's Book Library

FEB Word Processing: Installation-Transfer-Saving Files  
Printer Paper Settings  
Indexing of the Instruction's Book Library

MARCH Modem: Installation-Program Up-down Loading  
Up load Programs to BBS  
Index the Program Disks

APRIL Spreadsheet: Design Files-Sorting  
Set up Club Mail List System-Labels

MAY Computer Upgrades:  
Install RS-232 in Model I  
External Disks Model III & IV  
MS-Clone Card DIP Switches etc.

JUNE Model IV: Using the 128K Memory-RAM Drive  
Using 64K in Model III Mode

JULY Utility Program Applications  
Hyperzap Model I  
SuperUtility Model III & IV  
Norton's Utilities MS Clone  
Fastback Model II,12,16  
DOS Application Files

AUG DOS to DOS Program & Files Translerring  
TRSDOS to MULTIDOS Model I  
LDOS to TRSDOS Model IV  
NEWDOS to MS-DOS Model III-MS Clone

SEP BASIC Programming Classes Start  
Computer Maintenance  
School Educational Programs Update

OCT BASIC Programming Classes  
CAD-CAM Program Set-up and Usage

NOV BASIC Programming Classes  
Machine Language Introduction  
Installation of Program Patches

DEC Machine Language Usage  
Computer Club Review

Byte Bandits of Amer.  
TRS-80's Computer Club  
788 Main Ave.  
Campbell, CA 95008

